

**Abstract**

A mobile wireless communications system including a plurality of individual transponding nodes of various types, all in communication with a central processing hub. A local user signal is  
5 processed by the central processing hub and radiated through multiple paths to a plurality of the plurality of individual transponding platforms simultaneously. The signal is then re-radiated by each of the plurality of the plurality of individual  
10 transponding platforms to a mobile terminal that receives the re-radiated signal from the plurality of the plurality of individual transponding platforms coherently and in phase. The number of transponders and codes used to transmit each user signal can be  
15 readily adapted to user requirements.